

Project Nomination and Evaluation Criteria

Coastal Impact Assistance Program (CIAP)

1. Project Title:

- Grand Bayou Ridge Restoration

2. Entity/Individual Nominating the Project:

- Andrew MacInnes, Plaquemines Parish Coastal Zone Administrator
- Plaquemines Parish Coastal Zone Advisory Committee

3. Contact Information:

- Andrew MacInnes
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4. Total CIAP Funds Requested:	\$35,605,234.00
5. Parish CIAP Funds Requested:	To Be Determined
6. State CIAP Funds Requested:	To Be Determined
7. Infrastructure Funds Requested:	To Be Determined

8. Description and Location of Project:

- The proposed project is located on the westbank of Plaquemines Parish, to the west of the Empire area. Grand Bayou is a north-south running bayou that used to be a distributary of the Mississippi River. The creation of levees and the development of habitable land have cut off its connection to the river, but it is still heavily used as a major thoroughfare for waterborne commerce. Currently, Grand Bayou runs from the West Pointe a la Hache area to the Gulf of Mexico.

- This project will recreate the historic ridge(s) of Grand Bayou in an area of rapidly degrading marsh in the 'no-man's land' vicinity. This area has seen drastic marsh loss and the old ridges of Grand Bayou have been almost completely washed out. The loss of the ridges allows for a much greater tidal flow through the opened area resulting in increased scour and effect from wave energy, fetch, wind driven waves etc. The recreation of the ridges will help to slow water movement down, thereby helping to protect the existing marsh.

- Assumptions are that the project area is approximately 2 feet deep where the ridge restoration would take place and that appropriate type and quantity of material could be mined

from the Grand Bayou Pass to create the ridge with a bucket dredge. It is assumed that the ridge would be constructed to +6 with a 30' wide crest and a 8:1 slope on the bayou side and a 6:1 slope on the marsh side sloping into the created marsh. This yields a total of 688 cubic feet per linear feet of ridge or 25 cubic yards per linear feet of ridge created. (4 miles {2 miles for each bank} = 21,120)(688 cf/lf) = 14,530,560 cf = 538,170 cy total

- Assumptions are that the created marsh area is approximately 2.5 feet deep and would be constructed to +3.0 and would be approximately 1,000 feet from the bank of the Bayou both east and west. Due to the quantity of material that will be required to build the marsh, it is assumed that an appropriate site could be found offshore to build the marsh, which will result in higher unit costs. (1,000' marsh platform)(21,120')(5.5 feet deep) = 116,160,000 cf = 4,302,222 cy total.

- Assumptions are that containment would be required on the east and west side of the project area to contain the marsh creation for 2 miles in high energy environments at an average of 2.5 feet deep. (21,120 linear feet of containment)

Ridge Restoration (538,170 cy)(\$3.50/yd)	= \$1,883,595
Approximate volume of dredging for marsh creation: (4,302,222 cubic yards)(\$5/cubic yard)	= \$21,511,110
Mobilization/Demobilization	= \$1,500,000
Containment (Approximately 21,120 lf)(\$44/lf)	= \$929,280
Planting (484 acres)(3,500/acres)	= \$1,696,970
Construction Subtotal	= \$27,520,955
Contingency	= \$4,128,143
Construction Total	= \$31,649,06
Construction Supervision	= \$791,227
Engineering, Design, Land Rights, Project Admin (10% pri. construction)	= \$3,164,909
Project Total	= \$35,605,234

Comments: The project area is full of oyster leases. A review of the DNR Sonris database shows that the project area does not have active oil and gas wells within the project feature areas. However, the project feature is crossed by two Tennessee Gas Pipelines (see attached). This would have to be addressed during design and construction limiting dredging and spudding activities with a specified distance from the pipelines.

9. Project Type:

- Conservation, restoration and protection of coastal area, including wetlands.
- Mitigation of damage to fish, wildlife and natural resources.
- Planning assistance and administrative costs of CIAP compliance

10. Project Justification:

1. The recreation of the ridges will help to slow down tidal scour through the existing marshes
2. The ridges will serve as a barrier from the lateral tidal movement that occurs in the project area
3. The ridges will help to maintain the integrity of the navigational capacity of Grand Bayou

11. Project Cost Share (Types and amounts of non-CIAP funds proposed, if any):

- Plaquemines Parish would like to cost-share the project with DNR (amount and/or percentage to be determined).

